



Water-Data Report 2008

01367625 WALKKILL RIVER AT SPARTA, NJ

HUDSON RIVER BASIN

LOCATION.--Lat 41°02'25", long 74°37'47" referenced to North American Datum of 1983, Sparta Township, Sussex County, NJ, Hydrologic Unit 02020007, 0.4 mi northeast of Sparta, 1.2 mi downstream from outlet of Lake Mohawk, and 1.8 mi east of Fox Hollow Lake.

DRAINAGE AREA.--5.88 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1998 to current year.

GAGE.--Staff gage.

**DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Date	Discharge, in ft³/s
Nov 5, 2007	11.5
Feb 4, 2008	15.6
May 27, 2008	9.70
Aug 7, 2008	3.34

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1998 to current year.

REMARKS.--Cooperative Network Site Descriptor: Urban Land Use Indicator and Statewide Status, NJ Department of Environmental Protection Watershed Management Area 2.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Time	Sample medium and type	Instantaneous discharge, ft ³ /s (00061)	Turbidity white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)
Nov 05...	1130	Surface water, regular	12	1.9	.079	.058	758	11.0	102
Feb 04...	1029	QC - Artificial, field blank	--	--	--	--	--	--	--
04...	1100	Surface water, regular	16	2.8	.052	.038	751	13.1	97
May 27...	1225	Surface water, regular	9.7	3.2	.059	.045	759	8.8	96
Aug 07...	0950	Surface water, regular	3.3	1.9	.068	.051	738	8.3	91

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, μ S/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, fixed end pt, lab, mg/L as CaCO ₃ (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO ₂ (00955)
Nov 05...	7.9	571	--	11.4	150	36.2	15.2	1.41	48.4	128	92.4	E.09	4.7
Feb 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	8.1	689	2.0	3.1	170	40.6	15.8	1.45	72.9	126	129	E.06	3.3
May 27...	8.2	610	28.0	19.9	160	38.2	16.1	1.33	55.0	127	102	E.09	3.5
Aug 07...	7.9	716	24.5	19.5	190	44.0	18.8	1.83	61.5	162	120	E.11	8.7

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Sulfate water, flt'd, mg/L (00945)	Residue water, flt'd, sum of consti- tuents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non- filter- able, mg/L (00530)	Ammonia + org-N, water, flt'd, mg/L as N (00623)	Ammonia water, flt'd, mg/L as N (00608)	Nitrate + nitrite water flt'd, mg/L as N (00631)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, flt'd, mg/L (00602)	Total nitro- gen, water, unflt'd mg/L (00600)	Ortho- phos- phate, water, flt'd, mg/L as P (00671)	Phos- phorus, water, flt'd, mg/L as P (00666)	Phos- phorus, water, unflt'd mg/L as P (00665)
Nov 05...	17.2	E294	316	6	.31	.020	.33	.05	.64	.69	E.007	.013	.030
Feb 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	20.4	E360	364	3	.23	E.008	.35	.13	.59	.72	<.010	E.006	.027
May 27...	19.5	E314	319	7	.30	.031	.38	.12	.68	.80	.013	.024	.053
Aug 07...	14.0	E371	399	1	.38	.064	.96	.04	1.3	1.4	.029	.037	.050

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, flt'd, mg/L (00681)	Arsenic water, flt'd, µg/L (01000)	Arsenic water, unflt'd µg/L (01002)	Barium, water, unflt'd recover- able, µg/L (01007)	Beryll- ium, water, unflt'd recover- able, µg/L (01012)	Boron, water, unflt'd recover- able, µg/L (01020)	Boron, water, unflt'd recover- able, µg/L (01022)	Cadmium water, unflt'd µg/L (01027)	Chrom- ium, water, unflt'd recover- able, µg/L (01034)	Copper, water, flt'd, µg/L (01040)
Nov 05...	.6	<.04	.6	3.0	--	--	--	--	20	--	--	--	--
Feb 04...	--	--	--	--	<.06	--	--	--	--	--	--	--	<1.0
04...	1.0	<.04	1.0	2.5	2.3	3.1	26.6	<.04	18	13	<.01	<.40	--
May 27...	1.1	<.04	1.1	2.7	--	--	--	--	20	--	--	--	--
Aug 07...	.4	<.04	.4	2.6	6.7	7.8	31.4	<.04	20	21	<.01	<.40	--

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 5 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Copper, water, unfltrd recover- able, µg/L (01042)	Iron, water, unfltrd recover- able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, unfltrd recover- able, µg/L (01051)	Mangan- ese, water, unfltrd recover- able, µg/L (01055)	Mercury water, unfltrd recover- able, µg/L (71890)	Mercury water, unfltrd recover- able, µg/L (71900)	Nickel, water, fltrd, µg/L (01065)	Nickel, unfltrd recover- able, µg/L (01067)	Selen- ium, water, unfltrd recover- able, µg/L (01147)	Silver, water, unfltrd recover- able, µg/L (01077)	Zinc, water, fltrd, µg/L (01090)	Zinc, unfltrd recover- able, µg/L (01092)
	Nov 05...	--	--	--	--	--	--	--	--	--	--	--	--
Feb 04...	--	--	<.08	--	--	<.010	--	<.20	--	--	--	<1.8	--
04...	1.4	101	--	.45	28.6	--	<.010	--	.36	E.05	<.02	--	2.8
May 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
Aug 07...	2.6	168	--	.52	38.5	--	<.010	--	.30	E.07	<.02	--	E2.0

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phos- phorus, bed sedimnt total, mg/kg as P (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inor- ganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt recover- able, ug/g (64847)	Cadmium bed sedimnt recover- able, ug/g (01028)	Chrom- ium, bed sedimnt recover- able, ug/g (01029)	Cobalt bed sedimnt recover- able, ug/g (01038)	Copper, bed sedimnt recover- able, ug/g (01043)	Iron, bed sedimnt total digest, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)
		Aug 07...	0950	150	1,700	13	11	11.3	.150	8.6	3.6	8	15,000

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 4

[Remark codes: <, less than; E, estimated.]

Date	Mercury bed sedimnt recover- able, ug/g (71921)	Nickel, bed sedimnt recover- able, ug/g (01068)	Selen- ium, bed sedimnt recover- able, ug/g (64848)	Zinc, bed sedimnt recover- able, ug/g (01093)	1,2-Di- methyl- naphth- alene, bed sed <2 mm, ug/kg (49403)	1,6-Di- methyl- naphth- alene, bed sed <2 mm, ug/kg (49404)	1Methyl -9H- fluor- ene, bed sed <2 mm, ug/kg (49398)	1- Methyl- phenan- threne, bed sed <2 mm, ug/kg (49410)	1- Methyl- pyrene, bed sed <2 mm, ug/kg (49388)	236Tri- methyl- naphth- alene, bed sed <2 mm, ug/kg (49405)	2,6-Di- methyl- naphth- alene, bed sed <2 mm, ug/kg (49406)	2-Ethyl naphth- alene bed sed <2 mm, wsv nat ug/kg (49948)	2- Methyl- anthra- cene, bed sed <2 mm, ug/kg (49435)
	Aug 07...	<.007	5.8	<.1	180	<50	<50	E2	E7	E8	E1	E2	<50

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 4

[Remark codes: <, less than; E, estimated.]

Date	4H-Cyclo-penta-[def]-phenanthrene, <2mm ug/kg (49411)	9H-Fluorene, bed sed wsv nat ug/kg (49399)	Ace-naphthene, bed sed wsv nat ug/kg (49429)	Ace-naphthylene, bed sed wsv nat ug/kg (49428)	Anthracene, bed sed <2 mm, wsv nat field, ug/kg (49434)	Benzo-[a]-anthracene, bed sed <2 mm, wsv nat ug/kg (49436)	Benzo-[a]-pyrene, bed sed <2 mm, wsv nat ug/kg (49389)	Benzo-[b]-fluoranthene, bed sed <2 mm, wsv nat ug/kg (49458)	Benzo-[ghi]-perylene, bed sed <2 mm, wsv nat ug/kg (49408)	Benzo-[k]-fluoranthene, bed sed <2 mm, wsv nat ug/kg (49397)	Chrysene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthracene, bed sed <2 mm, wsv nat ug/kg (49461)	Fluoranthene, bed sed <2 mm, wsv nat field, ug/kg (49466)
Aug 07...	E15	E4	E2	E4	E16	97	110	180	E58	72	110	<50	220

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 4

[Remark codes: <, less than; E, estimated.]

Date	Indeno-[1,2,3-cd]-pyrene, bed sed <2 mm, wsv nat ug/kg (49390)	Iso-phorone, bed sed <2 mm, wsv nat field, ug/kg (49400)	Naphthalene, bed sed <2 mm, wsv nat ug/kg (49402)	PCBs, bed sed sedimnt ug/kg (39519)	p-Cresol, bed sed <2 mm, wsv nat field, ug/kg (49451)	Phenanthrene, bed sed <2 mm, wsv nat field, ug/kg (49409)	Phenanthrene, thri-dine, bed sed <2 mm, wsv nat ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sediment, dry svd sve dia percent <62.5um (80164)
Aug 07...	E53	<50	<50	E3.41	<50	77	<50	170	.4